

# QUALITY ANALYSIS OF EDUCATIONAL SERVICES ON STUDENT RESPONSE THROUGH QFD APPROACH TO IMPROVE PERFORMANCE OF UNIVERSITY OF 17 AGUSTUS 1945 (UNTAG) BANYUWANGI

Endang Suprihatin

*Industrial Engineering Study Program - S1, Faculty of Engineering  
University of 17 August 1945, Banyuwangi, Indonesia*

## ABSTRACT

*University of 17 Agustus 1945 or UNTAG Banyuwangi is a private university, where the source of mostly income comes from students or in other words that all forms of activities carried out are geared towards students, therefore efforts to acquire new students from year to year must be increased, one the effort that must be done is that UNTAG Banyuwangi is in addition to implementing the PMB program (admission of new students) with effective and great promotions as well as keeping students who have attended UNTAG Banyuwangi not stop studying midway. Therefore it is necessary to conduct research on the analysis of the quality of education services to the students' responses through Quality Function Deployment (QFD) approach in improving the performance of UNTAG Banyuwangi. The sampling result of the level of importance and satisfaction on the dimensions of infrastructure, learning process, human resources, curriculum and student affairs of all variables have corrected total correlation value greater than 0.1430 ( $r$  table value) for each dimension, of the sample questionnaire of 83 students have been valid. For the value of  $\alpha$  (alpha) obtained each dimension is also greater than 0.05, so it can be concluded that the data is reliable. The results of the analysis of the strengths and weaknesses of UNTAG are based on their importance and level of satisfaction are then plotted into quadrant maps Variables included in quadrant IV are weaknesses for UNTAG Banyuwangi educational institutions, namely: How to teach Lecturers, Strategies for teaching lecturers are understood by students, The ability of lecturers to use learning tools white board, UHP, LCD, lecturers in teaching in class, how to deliver material, how to answer student questions, quality of lecturers in conducting research, community service, infrastructure (office, classroom, laboratory room, studio , library rooms, experimental gardens, etc. except lecturer room), facilities / equipment used in the learning process such as computers, software and hardware. HOQ analysis in the technical response matrix derived from the way the UNTAG Banyuwangi Institute in answering the request of the Student (Hows). After conducting an interview with the leadership, namely the Rector, the selected technical response was: 1. Providing assistance to the Lecturer to develop the substance of the field of knowledge 2. Sending Lecturers to take part in the learning method training 3. Implementing a cycle of good practice learning processes. 4. Inventory of land, buildings and all the room. 5. Trying to obtain laboratory equipment and information technology.*

**Keywords:** *quality of service, Quality Function Deployment (QFD), Higher Education*

## 1. INTRODUCTION. 1. The Background

As an illustration of the results of the preliminary survey of problems faced by students in UNTAG Banyuwangi today covers several aspects:

from curriculum, human resources, students, learning process, facilities and infrastructure, academic atmosphere financial and others, examples of frequent events occur is a lack of clear trusteeship schedule, lecture schedule that is inconsistent with the lecturers' busy schedule, announcement of exam scores which are often late, and the difficulty of contacting certain lecturers in carrying out the preparation of the final project. This slowed the completion of the study of students, not even a few of the students who decided to stop midway (stop studying).

**Table 1.** The number of 2012 students entered until graduation

Student of 2012 generation	Graduation			LOSS (DO)
	2016	2017	2018	
776	335	68	43	330
				42%

Based on the above description, it is felt necessary to conduct research on the quality analysis of educational services towards student responses through the Quality Function Deployment (QFD) approach in an effort to improve the performance of UNTAG Banyuwangi institutions. The quality of good service usually will produce student loyalty to the original college so that students are able to create conducive conditions and can stimulate innovation and think scientifically and are able to master or utilize technology that is appropriate to market share, especially in Banyuwangi.

## 2. Problem Formulation

Based on the above description, then the problems faced by private universities (PTS) such as UNTAG Banyuwangi can be formulated as follows:

1. Analysis of weaknesses and strength in the quality of education services at UNTAG Banyuwangi institution on the satisfaction of an UNTAG Banyuwangi students.

2. Designing efforts to repair service elements to improve service quality at UNTAG Banyuwangi Institution through the Quality Function Deployment (QFD).

## 3. The Objective

By looking at the problems as mentioned above then the objective of this study is:

1. Analyze the types of educational services in private universities.
2. Analyzing student responses to UNTAG Banyuwangi institution performance.
3. Analyzing the efforts of improving the quality of service at an UNTAG Banyuwangi institution with the Quality Function Deployment (QFD) approach starting from improving the performance of all lecturers and employees both structural and non-structural officials in order to develop UNTAG Banyuwangi.

## 4. Benefits

The Benefits that can be obtained from the results of this study are as follows:

1. The higher institutions can know what kind of service quality is suitable to be applied nowadays.
2. As an input to the UNTAG Banyuwangi institution in improving the Quality of Tri Dharma of Higher Education and all its supporting aspects those are curriculum, human resources, student affairs, learning process, facilities and infrastructure.
3. Can be used as a reference for private universities who want to improve the quality of service.

## 5. The Problem Limitation

The problem Limitation that used in this study are:

1. Service users in this study are an S1 Student of UNTAG Banyuwangi at 8 (eight) semester.

2. In order to lead the research to the core of the problem, the dimensions used by the researcher are based on a good guidebook for the management of universities from the Directorate General of Higher Education by taking 5 (five) fields, namely:

1. Learning process
2. Curriculum
3. Human resources
4. Student Affairs
5. Facilities and infrastructure.

## **2. MATERIALS AND METHODS**

### **1. The Quality Meaning**

The definition of service quality implies that quality elements are:

1. Quality includes efforts to meet or exceed consumer expectations.
2. Quality includes products, services, people, processes and the environment.
3. Quality is an ever-changing conditions.

### **The Dimension of Quality Service**

According to Parasuraman (1985) in Fandy Tjiptono (2001: 70) there are five main dimensions that are most commonly used in assessing the quality of service are:

1. Tangibles, including physical facilities, equipment and means of communication.
2. Reliability, namely the ability to provide promised services immediately, accurately and satisfactorily.
3. Responsiveness, namely the desire of the staff to assist customers and provide services responsively.
4. Assurance, including the knowledge, ability, politeness, and trustworthiness of the staff, free from danger, risk, or doubt.
5. Empathy includes ease of relationship, good communication, personal attention, and understanding the needs of customers.

## **2. Higher Education**

Higher Education is education in the school education path at a higher level than the secondary education in the school education path. Higher Education consists of:

### **1. Academic Education**

Higher education is directed primarily at mastering science and its development.

### **2. Professional education**

Higher education is directed primarily at the readiness of application of certain skills.

SNP (National Standards of Education) is a guideline for the management of quality standards of Higher Education, in the implementation of the Directorate General of Higher Education on April 1, 2003 establishes guidelines of Good Practices in Higher Education Management compiled in 13 (thirteen) books in the areas of learning process:

1. Study Program curriculum
2. Human resources
3. Student Affairs
4. Infrastructure and facilities
5. Academic atmosphere
6. Finance
7. Research and publication
8. Community service
9. Governance governance system
10. Institutional Management
11. Information System
12. Domestic and foreign cooperation

## **3. Sample Determination**

To Know the amount of sample that needed, used the formula Complete Business Statistics by Amir d. Aczel & Jayavel Sounderpandian 6th edition, as follow:

$$n = \frac{\left( Z_{\frac{\alpha}{2}} \right)^2 p \cdot q}{SE^2} \sqrt{\frac{N - n}{N}}$$

Information:

n = Sample size

Z = Confidence level for normal distribution

p = Level of truth proposition

q = Level of false proportion

N = Population Size

SE = Percent leeway inaccuracy due to sampling error

#### 4. Questionnaire Design

Designing a questionnaire (Umar, 1997) is a very important part of the customer satisfaction research process. It can be said that the success of a research is determined by the design of the questionnaire made. Therefore, to design an effective questionnaire requires experience, skills and progress in the field to be studied.

#### 5. Likert Scale

According to Kinner (1988), this Likert scale relates to someone's question about someone's attitude toward something such as agreeing-disagree, happy-not happy and good-not good. Respondents were asked to fill in the questions on an ordinate scale in the form of verbal in a certain number of categories can be 5 to 7 categories in order to accommodate a neutral category by taking a middle position or entering a position not knowing.

#### 6. Validity Test

Validity test (Azwar, 1986) defined "a measure of how precisely and accurately a measuring instrument performs its measuring function". The purpose of validity testing is on the data obtained from the questionnaire distributed to respondents to check whether the contents of the questionnaire are sufficiently understood by all respondents, which is indicated by the small percentage of answers from respondents who

deviate from the average respondent's other answers. The measurement of validity in this study uses 'correlation coefficient (r)' to show the strength and direction of the relationship between variations in score distribution. The formulation is as follows:

$$R_{xy} = \frac{\Sigma xy - (\Sigma x)(\Sigma y) / n}{\sqrt{[\Sigma x^2 - (\Sigma x)^2 / n][\Sigma y^2 - (\Sigma y)^2 / n]}}$$

Information:

x and y = the score of each variabel

n = the amount of subject

The validity coefficient only has a meaning if it has a positive price. The power of a weak relationship between the two variables is shown by the size of the correlation coefficient. A large number of coefficients (close to 1.0) indicate the stronger of the existing relationship, while the small coefficient (close to 0) indicates the weaker of relationship that occurs. The interpretation of the validity coefficient is relative (Azwar, 1986). There is no universal limit that shows the minimum number that must be fulfilled so that a test is said to be valid.

#### 7 Reliability Test

Reliability test (Azwar, 1986) is a measure of how much reliability an instrument collects data means, how many times the question or variable is asked to the respondent, the answer will be relatively the same as long as the aspect measured in the subject has not changed. The way of reliability analysis is to find  $\alpha$  with the following equation:

$$\alpha = k \bar{r} / [(1 + (k-1)) \cdot \bar{r}]$$

Information:

$\bar{r}$  = Average value of correlation between variables

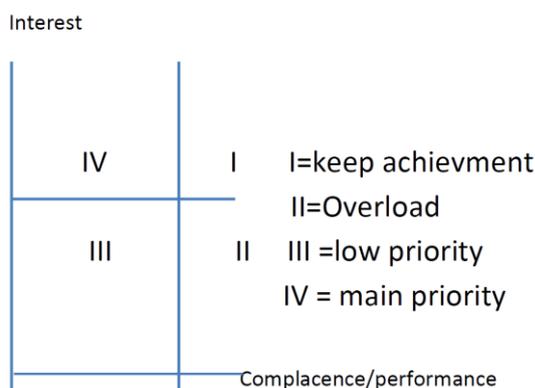
k = Number of variables analyzed

The greater the value of  $\alpha$  cronbach obtained, the more reliable the variable.

## 8. Quadrant Analysis

Quadrant analysis is used to know the advantages and disadvantages of a product. This analysis is based on the level of importance and level of satisfaction. There are 4 quadrants used in quadrant analysis (Kasali, 1998):

1. Quadrant I: factors that affect customer satisfaction that is in this quadrant is considered to be maintained because in general the level of implementation has been in accordance with the interests and expectations of customers, so it can satisfy the customer.
2. Quadrant II: factors that affect customer satisfaction in this quadrant are considered excessive. This is mainly because customers consider these factors is not too important.
3. Quadrant III: the factors that influence customer satisfaction in this quadrant are considered to be considered less important for consumers, while the quality of implementation is normal or sufficient.
4. Quadrant IV: the factors that affect the satisfaction of consumers who are in this quadrant and handling needs to be prioritized by the company, because the existence of these factors are considered very important by the customer while the level of implementation is still not satisfactory.



**Fig. 1** Quadrant analysis (Sources: Kasali, 1998)

## 9. Quality Function Deployment (QFD) Approach

QFD is a planning tool used to meet consumer expectations. The QFD discipline approach lies in product design, engineering, productivity and provides an in-depth evaluation of a product. An organization that implements QFD appropriately can improve engineering knowledge, productivity and quality, reduce costs, reduce product development time and engineering changes in line with the progress of the times and consumer demand.

### House Of Quality (HOQ)

Quality homes translate consumer voices into designs that meet certain target values and in accordance with the way the company meets those needs. Steps to build HOQ:

1. List of consumer needs (WHAT)  
This list refers to what consumers need for a particular product.
2. List of technical descriptions (HOW)  
After knowing the needs of consumers, the consumers' voices must be expressed in technical language. Therefore the QFD team must bring up technical characteristics or descriptions that can affect one or more consumer needs.
3. Establish matrix of relation between WHAT and HOW

This relation matrix will show the level of influence between each technical description and consumer needs. Common symbols used to indicate the level of correlation are:

1. The full circle shows a strong relationship given weighted 9
2. The empty circle shows the medium relation weighted 3
3. The triangle shows a weak relationship given weighted 1

4. Establish an interrelation matrix between HOW

The quality house roof is called the correlation matrix which is used to identify each interrelation between technical descriptions

5. Competitive estimates

Is a pair of weighting tables that describe one by one how competitive products compare to the company's products at this time.

6. Determining priority consumer needs

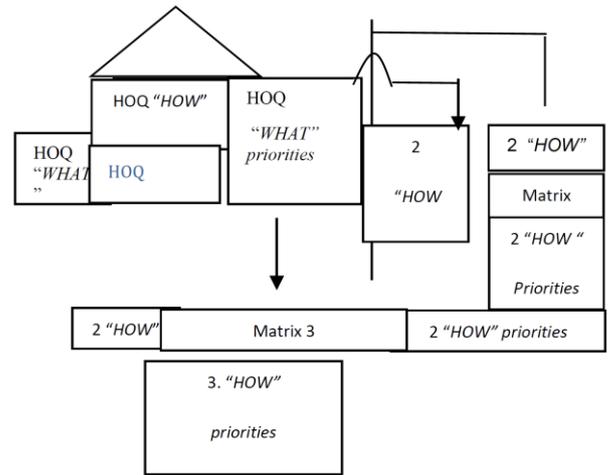
Made from a column that corresponds to each consumer's needs and is placed to the right of consumers' competitive estimates, among others, is the level of consumer interest, target value, scale factors.

**Derivatives of HOQ**

To construct QFD matrices, it must first be created HOQ. Where WHAT is placed at the left end of the matrix. WHAT is the voice of consumer desire. Next is the HOW placed at the top of the matrix. HOW is a substitute characteristic of the consumer wants to be realized.

Furthermore, at the bottom of the HOQ which is a technical matrix which contains the ranking between the desires and needs of the consumer becomes a top priority in the HOQ process. To combine HOQ into the second matrix, the team must put all the main priorities of the HOQ process to the left of the second matrix and the HOW section on the right. Now the HOW is become WHAT in this second matrix.

To achieve WHAT in this second section, the team must require new technical and more detailed parts of the HOW that will be placed at the top of this matrix. This will continue until the final matrix. See Fig. 2.



**Fig. 2 Matrix Interaction**

**3. RESULT AND DISCUSSION.**

**1. Collecting Data**

The next step is to collect the data needed to solve the problem. The method used is 2 (two) methods, namely the Questionnaire Method and the Interview Method.

The students of UNTAG Banyuwangi who were subjected to this study were 8 (eight) semester, students with a total of 385 students. By using the percent looseness of inaccuracy because of the sampling error that is still tolerable or desirable is 10% as the SE value, and the level of confidence ( $\alpha$ ) is 95% so that in the normal distribution table, the Z value is 1.96. After going through the calculation, the value of sample size n is 83 students

**2. Analysis of Consumer Interest**

The results of data collection in this section came from the results of the part II questionnaire that was filled in by the respondents, namely students about the level of interest of students towards the services provided by the UNTAG Banyuwangi institution and then searched for the average and classified into 3 (three) groups to facilitate analysis. Classification is carried out with the following assumptions:

- 1.00 - 2.33: low interest level.
- 2.34 - 3.66: moderate level of importance.

3.67 - 5.00: high level of importance.

From the results of the analysis of interests and student satisfaction above it is known that the average level of interest of students towards the variables is relatively high, but it turns out that the level of student satisfaction is still medium, for more details will be presented in the following figure:

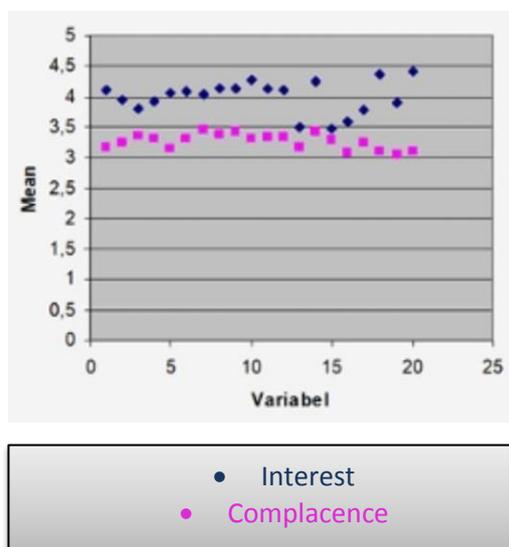


Fig. 3 Chart of Level of Interest and Student Satisfaction

### 3. The Analysis of Strength and Weaknesses of UNTAG Banyuwangi

This analysis of strength and weakness have aims to determine the variables that have been assessed by the students of UNTAG Banyuwangi based on their level of importance and level of satisfaction which are then plotted to the quadrant map. This information can be obtained which variables are categorized as important-satisfied (quadrant I), not important-satisfied (quadrant II), not important-unsatisfied (quadrant III) and important-not satisfied (quadrant IV).

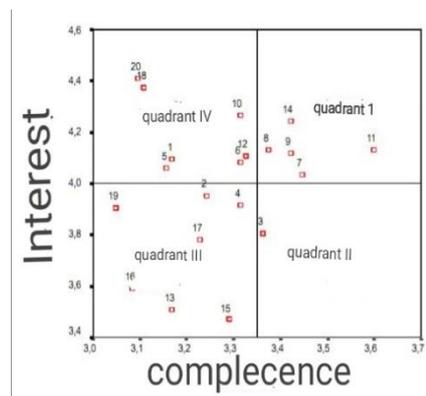


Fig. 4 Analysis of Quadrant Level of Satisfaction and Level of Interest

Based on the division of the dimensions on the variables of importance and the level of student satisfaction with the services of the UNTAG Banyuwangi educational institution, the next step is to analyze or explain the quadrant image analysis above, as well as to find out the variables that are the strengths and weaknesses of UNTAG Banyuwangi. The following is the analysis carried out:

#### Quadrant I

The variables in quadrant I are the strengths that UNTAG Banyuwangi has, because in this quadrant the students have a high interest in several variables and also have a high level of satisfaction, for example the variable giving good scholarships from Government and private sector, as well as the friendliness of lecturers and administrative staff are felt quite satisfied by students so that in this first quadrant some variables must be maintained by UNTAG Banyuwangi institution, as for the variables included in the quadrant I are as follows:

Table 2. Quadrant I Analysis

DIMENSION	NO	VARIABLE
Learning Process	7	How the students study effectively
	8	The students' achievement index that Achieved
Human Resources	9	Lecturer friendliness and administrative staff
	11	The ability of lecturers and

		administrative staff to control computer equipment, the internet.
Student Affairs	14	Giving scholarships from both the government and the private sector

### Quadrant II

The variables included in quadrant II mean that the level of satisfaction felt by students as users of Banyuwangi education services is felt high, but in terms of the level of interest of students towards the institution's services is relatively low, so it is considered that the institution is too excessive in terms of interests, while Variables included in this quadrant II are variable number 3 including in the curriculum dimension, namely "Lecture activities in accordance with the schedule of 16 x meetings including UTS (midterm examinations) and UAS (final semester examinations)".

This conclusion is taken based on the results of questionnaires that have been filled by students then analyzed, in fact terms of this curriculum dimension according to the rules of DIKTI on "Good Practice Guidelines in Higher Education Quality Assurance" is very important and cannot be abandoned, but because of this research based on the results of questionnaires filled in by student respondents it is very natural that some students think that study in accordance with the schedule 16 meetings, including midterm and semester exams are not very important, with that reason the students generally feel bored with lecture activities moreover mid-examination semester and final semester exam.

### Quadrant III

Variables included in quadrant III means having a level of satisfaction as well

as a level of importance that is equally low, or the level of satisfaction felt by students is still low but the level of importance is also low or according to students is not too important.

According to the results analysis are not important, the variables included in quadrant III do not have priority to be followed up or improved immediately, for example for student activities such as sports, arts and others in the campus environment, there is already a place which accommodates activity that interesting at talent, namely UKM (student activity unit) but in reality the number of students who are participating in these UKM is only little so it is still not optimal, this is indeed in accordance with the reality, but in terms of curriculum dimensions namely "Up to date Material given by the lecturers and in accordance with SAP (unit of learning event) and RPKPS (semester program plans and learning activities) "according to the DIKTI's rules on" The Good Practice Guidelines in Higher Education Quality Assurance " it is very important and cannot be abandoned, but according to students is the opposite. The variables included in quadrant III are:

**Table 3.** Quadrant III Analysis

DIMENSION	NO	VARIABLE
Curriculum	2	The material given by the Lecturer is up to date and in accordance with SAP and RPKPS
	4	Evaluation results: Tasks, quizzes, UTS, UAS
Student Affairs	13	Talent, student interest ranging from sports, arts, nature lovers, accommodated in SMEs (student activity units)
	15	Intra-campus student organization DPM, BEM, HMJ
	16	Guidance on UKM activities (student activity units)
	17	The achievements of students in the field of interest, talent, scientific

		reasoning.
Facilities and infrastructure	19	Other supporting infrastructures (for example sports venues, shared rooms, student association rooms)

#### Quadrant IV

The variables included in quadrant IV mean that these variables have a high level of importance in terms of the services provided by UNTAG Banyuwangi educational institutions, but in the according opposite to students as service users, they are still felt not satisfied with the services provided.

These variables included in quadrant IV being weaknesses for UNTAG Banyuwangi educational institutions and must get serious attention to be followed up or get high priority to be repaired because if it is being ignored, then UNTAG Banyuwangi will lose students or do not get students, because it is accessed by students that these variables are very important but the level of satisfaction is still low, as for the variables which are the weaknesses of UNTAG Banyuwangi are:

**Table 4.** Quadrant IV Analysis

Dimension	No	Variable
Curriculum	1	How the lecture teach
Learning Process	5	The teaching strategy of lecturers is understood by students
	6	The ability of lecturers to use a white board, UHP, LCD learning tools
Human Resources	10	Lecturers teaching in class, how to deliver the material, how to answer student questions.
	11	The quality of lecturers in conducting research, community service
Facilities and infrastructure	18	Infrastructure (offices, classrooms, laboratory rooms, studios, library rooms, experimental gardens, etc. except lecture room)
	19	Facilities / equipment used in the learning process such as computers, software and hardware.

From the results of quadrant analysis I to quadrant IV above, the variables of UNTAG Banyuwangi weaknesses and strengths will be known, for more details will be made in the following table.

#### 4. Repair Analysis Using HOQ

After the weaknesses and strengths have been known of each service provided by the UNTAG Banyuwangi educational institution, it was then analyzed further, because of the analysis results found many weaknesses of this service, then the weaknesses that have been identified will be made improvements using HOQ.

##### 1. Customer Requirement What's and How.

The factors that will become customer requirements are the factors that become the desire of students towards the education service system of UNTAG Banyuwangi, because these factors are the satisfaction that will later be accepted by students as well as an effort to improve the performance of the Institution, especially in developing UNTAG Banyuwangi. Those factors are:

1. How the lecture teach
2. The teaching strategy of lecturers is understood by students
3. The ability of lecturers to use a white board, UHP, LCD learning tools
4. Lecturers teaching in class , how to deliver the material, how to answer student questions.
5. The quality of lecturers in conducting research, community service
6. Infrastructure (offices, classrooms, laboratory rooms, studios, library rooms, experimental gardens, etc. except lecture room)

7. Facilities / equipment used in the learning process such as computers, software and hardware.

Further analysis of the weaknesses in UNTAG Banyuwangi service that has been identified then the value for Importance of the What's obtained from the mean score is presented in the following table:

**Table 5.** The Importance Value of Whats

Whats	Mean Level of Interest Score
How the lecture teach	4,0964
The teaching strategy of lecturers is understood by students	4,0602
The ability of lecturers to use white board, UHP, LCD learning tools	4,0843
Lecturers teaching in class , how to deliver material, how to answer student questions.	4,2651
The quality of lecturers in conducting research, community service	4,1084
Infrastructure (offices, classrooms, laboratory rooms, studios, library rooms, experimental gardens, etc. except lecture room)	4,3735
Facilities / equipment used in the learning process such as computers, software and hardware.	4,4096

**Table 6.** Importance of the How Value

Factors	Weight
Providing assistance to the Lecturer to develop the substance of the field of science (further study, research)	146,1
Sending lecturers to participate in learning method training <ul style="list-style-type: none"> <li>• Training Program "Development of Basic Instructional Engineering Lecturer Skills (PEKERTI)"</li> <li>• "Applied Approach (AA)" Training</li> <li>• Innovative learning training</li> </ul>	194,3
Implementing a cycle of practice both the learning process starting from the implementation schedule, the person in charge of monitoring and evaluation	162,7
Inventory of land, buildings and all their space and uses	99,7

Seek to obtain laboratory equipment and information technology by: <ul style="list-style-type: none"> <li>• Buy / self procure (adjusted to the University's budget and ability)</li> <li>• Submit a Grant</li> <li>• Follow DIKTI projects</li> </ul>	173,4
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2. Technical Response Matrix Weighting

The next sequence in making this HOQ is the creation of a technical response matrix. In this section, UNTAG Banyuwangi Institution placed the way in answering the Student's request (How's). After conducting an interview with the leadership, namely the Rector, the selected technical response is:

1. Providing assistance to the Lecturer to develop the substance of the field of science (further study, research)
2. Sending lecturers to participate in learning method training
  - Training Program "Development of Basic Instructional Engineering Lecturer Skills (character)"
  - "Applied Approach (AA)" Training
  - Innovative learning training
3. Implementing a cycle of practice both the learning process starting from the implementation schedule, the person in charge of monitoring and evaluation
4. Inventory of land, buildings and all their space and uses
5. Seek to obtain laboratory equipment and information technology by:
  - Buy / self procure (adjusted to the University's budget and ability)
  - Submit a Grant
  - Follow DIKTI projects

### 3. Relationship Matrix Making

This relationship matrix is a matrix that contains the relationship between student requests and the way UNTAG Banyuwangi institution responded to the student's request. In making this relationship matrix, an interview with UNTAG Banyuwangi agency was conducted, to determine the relationship between What and How on HOQ whether it has a strong (●), moderate (○) or weak (▽) relationship.

### 4. Filling Trade Off

On the roof part of HOQ contains the relationship between the How elements. There are two possible trade-offs, namely whether the improvement initiatives support or actually inhibit each other. For mutually supportive relationships are given a + (positive) sign, while for mutually inhibiting relationships are give - (negative) sign.

### 5. House of Quality Analysis

After creating a relationship matrix, we will get the weight of Importance of How in each technical response column as below:

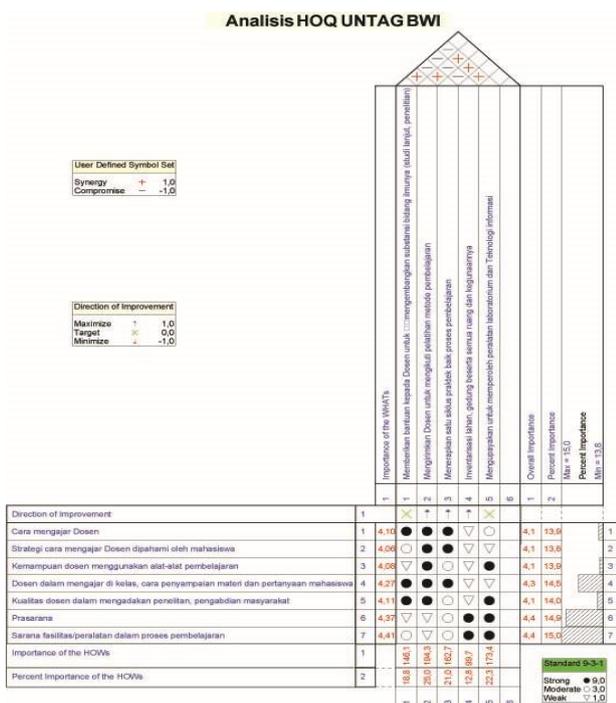
### 4. CONCLUSION.

Based on the results of data processing and analysis results, the conclusions of the results of this study are as follows:

1. Factors that are considered important by students seen from the service quality of the Banyuwangi Higher Education Institution are as follows:

**Table 7.** The factors of service quality of UNTAG Banyuwangi

DIMENSION
<b>Tangible (facilities and infrastructure)</b>
<ul style="list-style-type: none"> <li>Infrastructure (offices, classrooms, laboratory rooms, studios, library rooms, experimental gardens, etc. except lecture room)</li> <li>Other supporting infrastructures (for example sports venues, shared rooms, student association rooms)</li> <li>Facilities / equipment used in the learning process such as computers, software and hardware.</li> </ul>
<b>Reliability (Learning Process)</b>
<ul style="list-style-type: none"> <li>The teaching strategy of lecturers is understood by students</li> <li>The ability of lecturers to use white board, UHP, LCD learning tools</li> <li>How to study of the students effectively</li> <li>The students' achievement index</li> </ul>
<b>Responsiveness (Human Resources)</b>
<ul style="list-style-type: none"> <li>Lecturer friendliness and administrative staff</li> <li>Lecturers teaching in class , how to deliver material, how to answer student questions.</li> <li>The ability of lecturers and administrative staff to master computer equipment, the internet.</li> <li>Quality of lecturers in conducting research, community service</li> </ul>
<b>Assurance (Curriculum)</b>
<ul style="list-style-type: none"> <li>The material given by the Lecturer is up to date and in accordance with SAP and RPKPS</li> <li>How the lecture teach</li> <li>Lecture activities are in accordance with the schedule of 16 meetings including UTS and UAS</li> <li>Evaluation results: Tasks, quizzes, UTS, UAS</li> </ul>
<b>Empathy (Students Affair)</b>



**Fig. 5** HOQ UNTAG Banyuwangi Analysis

- Talent, student interest ranging from sports, arts, nature lovers, accommodated in SMEs (student activity units)
- Giving scholarships from both the government and the private sector
- Intra-campus student organization DPM, BEM, HMJ
- Guidance in UKM activities (student activity units)
- The achievements of students in the field of interest, talent, scientific reasoning.

2. The conclusion of the analysis results of the level of interest of students with the highest level of importance is on the variable with a mean of 4.4096 namely facilities / equipment used in the learning process such as computers, software and hardware, this provides information to UNTAG Banyuwangi to complete the facilities and infrastructure which are considered important by students to support the teaching and learning process at UNTAG Banyuwangi, and indeed has become an absolute requirement in promoting a private university that wants to improve the quality of education services in the community.

3. The Conclusions from the analysis of the level of students' satisfaction analysis. It is known that the average level of student satisfaction is medium, or in other words, the entire service provided by UNTAG Banyuwangi still does not satisfy students (the level of satisfaction is medium), this shows that UNTAG Banyuwangi institution must immediately respond to what students who used UNTAG Banyuwangi education services want, with the hope that the level of satisfaction felt by students can be higher so that it can increase student loyalty and reduce the number of BSS (stop study temporarily) and on the contrary can increase the number of students from year to year.

4. As an improvement effort that is carried out by using house of quality analysis, factors that can be prioritized based on the level of interest of students to improve the quality of UNTAG Banyuwangi's current services, namely:

1. Sending lecturers to participate in learning method training with a percentage of 25,0 % by:

- Training Program "Development of Basic Instructional Engineering Lecturer Skills (PEKERTI)"
- "Applied Approach (AA)" Training
- Innovative learning training

2. Strive to obtain laboratory equipment and information technology with a percentage of 22.3% by:

- a. Buy / self procure (adjusted to the University's budget and ability)
- b. Submit a Grant
- c. Follow DIKTI projects

3. Implementing a good practice cycle of the learning process starting from the implementation schedule, in charge of monitoring and evaluation, with a percentage of 21%.

4. Providing assistance to lecturers to develop the substance of their fields of study (further study, research), with a percentage of 18.8%.

5. Inventory of land, buildings and all their space and uses, with a percentage of 12.8%.

5. Based on the Action Plan analysis where in the drafting process involves UNTAG Banyuwangi Academic Community component consisting of the Rector, Dean, LPPM (Institute for Research and Community Service) and LPMU (University Quality Assurance Institute), basically the implementation of the Action Plan already exists in 2008 the sending of lecturers to take further study, but at that time there was no action plan term because there had never been any research on the quality of education services on student responses using QFD analysis. The results of the analysis of the action plan are:

The Weaknesses and strengths of data analysis that have been identified are:

**Table 8.** the weakness and strengths

DIMENSION	WEAKNESSES	STRENGTHS
<b>Curriculum (Assurance)</b>	-How the lecture teach	
<b>Learning Process (Reliability)</b>	-The teaching strategy of lecturers is understood by students -The ability of lecturers to use white board, UHP, LCD learning tools	-How to study of the students effectively  -The students' achievement index
<b>Human Resources (Responsiveness)</b>	-Lecturers teaching in class , how to deliver material, how to answer student questions. -Quality of lecturers in conducting research, community service	-Lecturer friendliness and administrative staff  -The ability of lecturers and administrative staff to master computer equipment, the internet.
<b>Students Affair (Empathy)</b>		-Giving scholarships from both the government and the private sector
<b>Facilities and infrastructure (Tangible)</b>	-Infrastructure (offices, classrooms, laboratory rooms, studios, library rooms, experimental gardens, etc. except lecture room) -Facilities / equipment used in the learning process such as computers, software and hardware.	

**Table 9.** Action Plan

How	Action Plan	Realisation		Person in Charge	Evaluation
		Not yet	AI ready		
Providing assistance to the Lecturer to develop the substance of the field of science (further study, research)	-Engineering Faculty 2 lectures (ITAT Sby) -Ekonomik Faculty 3 lectures (UNTAG sby) -Postgraduate S3 -Research	√	√	Lecture Faculty Study Program	Vice Rector I Faculty LPMU
Sending Lecturers to participate in learning method training	-Lecturers attended training from KOPERTIS VII (East Java) each Faculty. 1 lecturer -PEKERTI AA -Innovative Learning		√	Lecture Faculty Study Program	Faculty LPMU
Implement one cycle of good practice learning processes	SAP preparation, RPKPS, Teaching Contract, Dictate, Hand out		√	Lecture	Study Program LPMU
Inventory of land, buildings and all their space and uses	Inventory of all assets owned Plan additional infrastructure		√	Faculty LPMU	Vice Rector II
Strive to get laboratory equipment and information technology	-Preparation of Grant proposal - Selection of lecturers' proposals to obtain DP2M funds - Preparation of the DIKTI proposal	√	√	LPMU Lecture LPPM	LPMU LPPM
			√	FKK	FKK

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